

Alford Ashfield Becket Blandford

Blandford Buckland Charlemont

Chester Chesterfield Colrain Conway

Cummington Egremont

Goshen Great Barrington

Hawley Heath Hinsdale

Huntington Lanesborough Leverett

> Leyden Middlefield Monterey

New Ashford
New Marlborough

New Salem Northfield

Otis

Peru Plainfield

Rowe Royalston Sandisfield

Shelburne

Shutesbury Tolland

Warwick Washington

Wendell

West Stockbridge Worthington FROM: WiredWest Communications Cooperative Corporation

TO: Ms. Marlene H. Dortch

DATE: March 7, 2014

Secretary, Federal Communications Commission, Wireline Competition Bureau

RE: Expression of Interest - Rural Broadband Experiments WC Docket No. 10-90/Connect America Fund (CAF)

WiredWest Communications Cooperative Corporation (WiredWest) respectfully submits this Expression of Interest in support of the Federal Communications Commission (FCC) providing funds from the Connect America Fund (CAF) to conduct experiments in deploying broadband in rural areas, and in so doing to allow "non-traditional" organizations to receive such funds.

Background: WiredWest is a cooperative of 42 small rural towns in western Massachusetts organized in 2011 under Massachusetts General Laws Chapter 164, Section 47C to bring broadband service to the largely unserved areas in our territory by constructing and operating a fiber-to-the-premises network.

We are clearly what the Commission would consider to be a non-traditional organization for the purposes of this program. Specifically, our members are what Chapter 164 refers to as Municipal Lighting Plants (MLPs). Such entities were originally authorized in the early 20th century to enable rural towns, unserved by the electricity providers of that time, to establish and operate their own electric companies. In recent years the enabling legislation was amended to allow MLPs to offer cable television and later telecommunications services (the term "telecommunications" is used more broadly under state law than the definition of same under Title II of the federal Telecommunications Act of 1996 and not in contrast to the definition of information services under Title I of that Act). Largely lacking such service, our member towns formed MLPs specifically for the purpose of joining the WiredWest MLP cooperative as their designated entity to bring robust broadband connectivity, digital telephony and other advanced digital services to residents, businesses and other organizations (but not to provide electricity).

Territory: Of WiredWest's 42 member towns, 35 have no cable service, and are part of a larger group of 45 towns in western Massachusetts that the Massachusetts Broadband Institute (MBI) has identified as targets of potential state funds for new last-mile infrastructure. For this Expression of Interest, WiredWest is targeting the 45-town group. The map below shows these towns divided into WiredWest's 35 unserved and underserved member towns (solid green) and the additional 10 unserved and underserved towns in need of last mile infrastructure (striped green). Many of these towns have already begun the process of forming MLPs in their towns, or have an existing MLP, which would enable them to join the WiredWest Cooperative. Towns without MLPs may also join the Cooperative as affiliates.

The 45 towns are in the rural areas of Berkshire, Franklin, Hamden, Hampshire and Worcester counties in western Massachusetts, and all are high-cost service areas as defined by the FCC. Our entire build is contained in census tracks that are currently considered by the FCC to be unserved or underserved, and has over 28,000 housing units, including 5,000 eligible high cost locations and over 250 extremely high cost locations.



We understand the FCC is focused on extending service in the areas that lack internet access to 3 mbps download and 768 mbps upload. Based on our review of the cost model information the FCC has published and the census tract information you have also made available on high cost, and extremely high cost service areas, Verizon, the incumbent price cap carrier that serves our target region, may be offered as much as \$4,333,000 per year in subsidy for up to 10 years to serve the same unserved locations we have targeted with a lower, one-time investment in the WiredWest project. We feel we can deliver much more value, including higher speeds, and create long-lived telecommunications infrastructure for much less FCC money. Below are the details of cost locations of the 45 towns targeted in this expression of interest, including the annual support eligibility. Note that there are 10 additional high cost towns not part of WiredWest's proposal that are deemed served by broadband by the MBI.

State	State County	CountyName	Tract	TractID	Eligible High Cost Loc Extr	remely High Cost Loc	Annual Support	Eligible I	Full/Part	Block Groups	Towns in WW Service Area
MA	25 003	Berkshire	911100	25003911100	17	0	\$64,781.19	Eligible I	Full		Lanesborough
MA	25 003	Berkshire	931300	25003931300	70	10	\$148,846.50	Eligible I	Full		Florida, Savoy,
MA	25 003	Berkshire	931400	25003931400	55	1	\$207,318.93	Eligible I	Full		Peru, Windsor
MA	25 003	Berkshire	932200	25003932200	393	7	\$253,025.31	Eligible I	Full		Becket, Washington
MA	25 003	Berkshire	932300	25003932300	.99	0	\$39,198.40	Eligible I	Full		Hinsdale
MA	25 003	Berkshire	933200	25003933200	219	17	\$170,282.92	Eligible 1	Full		Monterey, Tyringham
MA	25 003	Berkshire	933300	25003933300	197	19	\$204,659.77	Eligible I	Full		New Marlborough
MA	25 003	Berkshire	933400	25003933400	334	7	\$366,960.99	Eligible I	Full		Sandisfield
MA	25 011	Franklin	40100	25011040100	607	31	\$646,087.30	Eligible I	Full		Hawley, Charlemont, Rowe, Monroe, Heath, Colrain
MA	25 011	Franklin	40200	25011040200	28	0	\$91,246.59	Eligible 1	Partial	1	Leyden
MA	25 011	Franklin	40400	25011040400	564	51	\$162,791.46	Eligible I	Partial	1,3	Warwick, Wendell
MA	25 011	Franklin	40600	25011040600	413	16	\$142,227.13	Eligible	Partial	2, 3	Shutesbury, New Salem, Leverett
MA	25 011	Franklin	41501	25011041501	353	10	\$187,593.85	Eligible I	Partial	1, 2	Ashfield
MA	25 013	Hampden	813000	25013813000	346	57	\$220,625.92	Eligible I	Partial	1, 4, 5	Tolland, Blandford, Montgomery
MA	25 015	Hampshire	822605	25015822605	57	3	\$35,206.15	Eligible I	Full		Chesterfield
MA	25 015	Hampshire	822606	25015822606	10	0	\$12,091.27	Eligible I	Partial	1	Goshen
MA	25 015	Hampshire	822700	25015822700	168	2	\$257,806.91	Eligible I	Full		Middlefield, Worthington, Cummington, Plainfield
MA	25 027	Worcester	702200	25027702200	156	6	\$146,274.46	Eligible I	Partial	2	Royalston
MA	25 027	Worcester	704200	25027704200	75	6	\$114,468.69	Eligible I	Partial	2	Petersham
MA	25 027	Worcester	720100	25027720100	73	1	\$64,121.87	Eligible	Full		Princeton
MA	25 027	Worcester	723100	25027723100	121	- 5	\$93,040.53	Eligible I	Partial	5	New Braintree
MA	25 3	Berkshire	933400	25003933400	334	7	\$366,960.99	Eligible 1	Full		Otis
MA	25 3	Berkshire	934200	25003934200	56	0	\$76,985.80	Eligible I	Full		West Stockbridge
MA	25 3	Berkshire	934300	25003934300	458	11	\$138,666.49	Eligible I	Full		Alford, Egremont, Mount Washington
MA	25 3	Berkshire	935100	25003935100	153	3	\$128,111.90	Eligible I	Partial		Hancock, New Ashford
							\$4,339,381.32				

A market research study completed by Market Street Research on behalf of WiredWest indicated the demographics of the towns support strong demand for high speed internet, with 99% of households surveyed owning at least one computer or laptop and 88% of households with existing home internet

access, which compares favorably to the US average of 62%. Also supporting internet adoption is the education level, which shows 37% of households with a Bachelor's degree or higher, with some towns as high as 65%. This compares favorably with other rural areas and the US average of 28%.

According to the 2010 census, the 45 towns have 4,608 households with income under \$35,000, and an average poverty level of 7% across 45 towns with a high of 16.7% in Monterey.

Existing Services and Providers: Internet services available in the 45 towns include dial-up, satellite, DSL, mobile broadband (aircard) and fixed wireless. Dial-up is the only service that is ubiquitously available. Satellite is available to most, but not all premises, and DSL, provided by Verizon, is typically available in only the most densely populated areas near town centers, and service degrades the further premises are located from the central offices. Mobile and fixed wireless have very limited availability in our region because of a lack of wireless infrastructure. There are also select premises that have procured high cost T1 lines.

The level of frustration with existing offerings is high, with 45% of respondents in the WiredWest market survey indicating dissatisfaction with the speed of their service. More than 60% of respondents get download speeds of <1 to 3 mbps and upload speeds are typically under 1 mbps, and higher bandwidth offerings from satellite not meeting advertised speeds. High cost is also an issue with 37% of respondents paying more than \$60/month for internet service and all households paying \$187/month on average for internet, phone and television. Additionally, all of the existing internet service offerings are non-symmetrical, and both satellite and wireless offerings have stringent monthly download allowances that preclude the use of modern high-bandwidth applications, or impose significant cost penalties.

The lack of adequate service coverage has far-reaching negative impacts in our communities. School children often must travel to their local library after hours and sit outside to use the library's free WiFi to do their homework. People have lost jobs because of their inability to satisfactorily telecommute with their employers. The inferior internet access penalizes productivity of existing home businesses and deters people from starting new ones. In fact, our market research showed 30% of respondents would likely telecommute or start a home business with better internet access. And ultimately, the lack of access to professional, business and education opportunities, as well as to the benefits now available in telemedicine that are unavailable because of the poor internet service in WiredWest towns, has negatively impacted people's desire to live in our communities; especially young families and professionals. Improving our internet access is not only vital to the economic development in our rural towns, it is critical to ensuring they remain viable communities in the decades to come.

Community Anchor Institutions: The MBI last month completed construction of a "middle-mile" fiber network in 123 towns in western and central Massachusetts, using \$40 million in state funds and \$45 million from the Broadband Technology Opportunities Program (BTOP). This network, MassBroadband123 (MB123), is now operational and several Internet Service Providers are beginning to serve the 1,200 anchor institutions it has connected. WiredWest intends to leverage the MB123 network and the work done by BTOP by extending its connectivity to individual homes, businesses and town institutions not connected to MB123, however, the majority of CAIs in the 45 towns are already served. Below is the map of the MB123 network and its points of interconnection.

Proposed Technology: WiredWest is committed to building a last-mile gigabit Ethernet fiber-to-the-home network, extending the connectivity from MB123 to serve citizens, businesses and institutions in our member towns. Not only does this type of network reduce the number of protocols needed on the network to simplify operations, but most importantly it creates an enduring asset for the region that will be able to adequately meet bandwidth needs for the foreseeable future.



State and Local Government Support: The cost to build the last-mile network from the existing MB123 network to individual premises is estimated to be about \$100 million, a figure substantiated by several financial models built independently by WiredWest and consultants to MBI. To complete the financing and buildout of the network, we are working on participation of stakeholders at the federal, state and local levels. An Information Technology Bond Bill now before the Massachusetts legislature, H.3770, includes \$50 million for MBI for the last mile. It passed the state House of Representatives unanimously in 2013, and is anticipated to pass the state Senate and be signed by Governor Deval Patrick this spring. MBI is expected to use those funds to extend its fiber deeper into the 45 towns. WiredWest is now looking at several sources for the remaining \$50 million, including CAF and local town governments. WiredWest has been engaged with local officials in the development of a proposal for the WiredWest Cooperative to issue a bond, which it has the legal authority to do under its enabling legislation, and which would be backed by the borrowing authority of its member towns. It's anticipated that such a bond would be in the amount of \$25 to \$30 million for all 45 towns, and that WiredWest would begin formalizing the bonding requirements in the second quarter of 2014.

Project Timeline: WiredWest has completed a high-level engineering design in conjunction with creating a GIS orthophoto map database of all utility poles, roads and structures in our territory. Once MBI receives the pending state funds and determines where it will extend its network, WiredWest will undertake the detailed design of the balance of the network and begin make ready applications. We believe that within six months of being awarded CAF funding, we will be able to issue the bond and begin construction. We project that completion of the entire 45 towns will take three years, with the first customers coming online after one year.

Scalability: The benefits of the regional approach offered by WiredWest include pooling of resources, and economies of scale and efficiencies of operation necessary to enable us to serve the unserved in our territory with a sustainable business model. We believe we're pursuing a model that is applicable in other rural areas. But depending on the level of CAF financing available, WiredWest is prepared to implement the project in phases, beginning in those towns with the highest demand, as determined by customers signing conditional service agreements.

Pricing: WiredWest rates for triple-play service will be comparable to that of other triple-play providers in Massachusetts. For internet service, WiredWest plans to offer affordable packages up to 1 gbps, and also to have a subsidized low-cost 5 mbps program for low income households, both of which will enable strong levels of adoption.

ETC Status: WiredWest is not presently an Eligible Telecommunications Carrier, but will apply for such status in order to be able to accept CAF funds. Members of the WiredWest team have started numerous CLECs and certified interconnected VoIP providers, as such we believe that once funded we will be able to obtain ETC status from the State of Massachusetts or partner with a provider that has obtained such status.

Total Project Cost: \$100 million

Total State Funding: \$50 million

Total Local Funding: \$25 to \$30 million **Total CAF Funding:** up to \$25 million

Because we believe these systems should be self-sustaining, we are asking for a one-time investment in a last mile network for western Massachusetts in place of a recurring subsidy. An FCC investment of \$25 million would cover 25% of the cost and leverage state and local participation. It will enable WiredWest to build to every premise in our region and provide meaningful broadband adoption in FCC-identified high-cost census tracts. We believe this approach, making one-time capital investments, is a model that should be tested and one which WiredWest can help the FCC prove valid.

As a non-traditional organization requesting CAF funding, WiredWest is uniquely positioned to partner with the FCC for a trial project. The organization is a consortium of local communities vested in the project's success; there is proven demand for broadband from our region; we have well-developed financial and engineering models; and there will be meaningful state and local financial participation in this project to leverage potential CAF funding.

We strongly urge the Commission to move ahead with the program of rural experiments it is considering conducting with CAF funds. Such trials are both feasible and needed. WiredWest is strongly interested in participating in the program.

Respectfully submitted,

/s/ David Epstein
Executive Director

<u>/s/ Monica Webb</u>
Chair of the Board of Directors